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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,377	03/02/2004	Marcos Dantus	6550-000057/CPE	8952

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ART UNIT	**PAPER NUMBER**
2828	

MAIL DATE	DELIVERY MODE
01/08/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/791,377	DANTUS ET AL.	
	Examiner	Art Unit	
	DELMA R. FORDE	2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 September 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16,20,22,26-80 and 92-123* is/are pending in the application.

4a) Of the above claim(s) *See Continuation Sheet* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 – 2, 4, 7 – 9, 11, 14, 26 – 33, 47 – 51, 53, 57, 60, 63, 65, 68, 70, 77 – 80, 92 – 101 and 108 – 123* is/are rejected.

7)☒ Claim(s) *3 and 107* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *06/20/08, 09/16/08, 10/30/08 and 12/05/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continuation of Disposition of Claims: Claims withdrawn from consideration are 5, 34 – 46, 54, 56, 62, 63, 66, 71 - 76, 79 – 90

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims *1-16, 20, 22, 26-70, 71-80 and 92-123* have been considered but are moot in view of the new ground(s) of rejection.

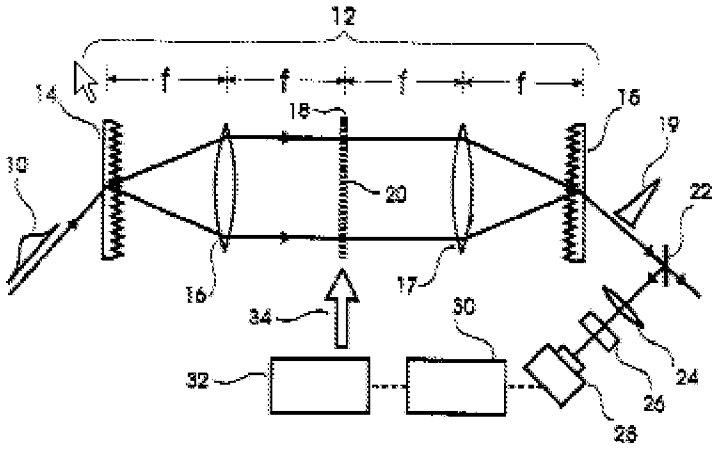
Applicant's arguments filed September 16, 2008 have been fully considered but they are not persuasive. The applicant elects Figure 15, based on election of the applicant; the examiner verified claims 1 – 16, 20, 22, 26 – 70, 77 – 80 and 92 - 123 carefully and determined that claims 1 – 2, 4, 7 – 9, 11, 14, 26 – 33, 47 – 51, 53, 57, 60, 63, 65, 68, 70, 77 – 80, 92 – 101 and 108 – 123 reads in the Figure 15 that the applicant elected. However, the examiner believe claims 5, 34 – 46, 54, 56, 62, 63, 66, 71 - 76, 79 – 90 *are* represented different species (Species I, III, V, VI and VII, shown on Figures 7, 14, 16, 17 and 18) where not considered by the examiner because is a considered different species. And claims 90 and 91 was canceled by applicant on September 16, 2008.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 – 2, 4, 7 – 9, 11, 14, 26 – 33, 47 – 51, 53, 57, 60, 63, 65, 68, 70, 77 – 80 and 92 – 104, 106, 108 – 123 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silberberg et al. (6,327,068) in views of A. M. Weiner “Femtosecond pulse shaping using spatial light modulators”, pages 1929—1957.



Regarding claims 1 and 2, Silberberg discloses a system comprising: a laser (the reference do not show a laser, but show the pulse and the pulse come from the laser) operable to emit a femtoseconds laser beam pulse (see Fig. 1, Character 10 and Column 2, Lines 15 – 16); a phase shaper (see Figure 1, Character 12) and a controller (see Fig. 1, Character 32, the reference call “computer”). In reference to the claim language referring to [“automatically operable to control the laser and the shaper”], intended use and other types of functional language must result in a structural difference between the claimed invention and the prior art in order to patentably

distinguish the claimed invention from the prior art. If the prior art structure is capable to performing the intended use, and then it meets the claim. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987). In a claim drawn to a process to making, the intended use must result in a manipulative difference as compared to the prior art. In Regarding claim Casey, 152 USPQ 235 (CCPA 1967); In Regarding claim Otto, 136 USPQ 458, 459 (CCPA 1963).

Silberberg discloses the claimed invention except phase shaper operable to shape the pulse with binary phase value. Weiner teach a phase shaper operable to shape the pulse with binary phase value. However, it is well known in the art to apply phase shaper operable to shape the pulse with binary phase value as discloses by Weiner in page 1934, third paragraph. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was to apply the well known phase shaper operable to shape the pulse with binary phase value as suggested by Weiner the laser of Silberberg, because could be used produce waveforms with symmetrical intensity profiles, while gray-level phase (typically with four or more phase levels) can be used for generating pulse trains and other waveforms with asymmetrical intensity profiles and could be used to intensify profile of the projection light beam. A phase shaper (see Figure 1, Character 12) operable to shaped the pulse with binary phase-value (Silberberg do not explicitly disclose a binary pulse-value. However, it was

shown above that Silberberg teach phase shaper. These binary pulse-values will inherently have these characteristics as claimed).

Regarding claim 4, Silberberg discloses evolutionary learning calculations Silberberg discloses the computer and the computer has a program to evolutionary learning calculations which will implicitly provide calculations needed) and used by the controller it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987).

Regarding claims 7, 8, Silberberg discloses the pulse shaper has one of the following pixel resolutions; (a) about 128 (Column 5, Lines 42) and the bandwidth of the laser is dispersed across all pixels of the phase modulator (Column 5, Lines 39 – 49).

Regarding claims 9, 11 and 14, Silberberg discloses the system is employed in optical coherence tomography, functional imaging and photodynamic therapy, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987).

Regarding claims 26, 29 – 32, Silberberg discloses a system for use with living tissue, the system comprising: a high peak intensity laser (the reference does not show a high peak intensity laser, but show the pulse and the pulse come from the femtoseconds laser and the femtoseconds laser is a high peak intensity laser) beam pulse (see Fig. 1, Character 10 and Column 2, Lines 15 – 16); and a device (see Fig. 1, Character 12) operable to change a characteristic of the pulse prior to emission of the pulse upon the living tissue through use of multiphoton intrapulse interference, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987), wherein nonlinear transitions (Column 2, Lines 38 – 57) induced by each pulse are controlled by phase shaping (see Fig. 1, Character 12, Column 5, Lines 15 – 33).

Silberberg discloses the claimed invention except binary phase shaper. Weiner teach a binary phase shaper. However, it is well known in the art to apply binary phase shaper as discloses by Weiner in page 1934, third paragraph. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was to apply the well known binary phase shaper as suggested by Weiner the laser of Silberberg, because could be used produce waveforms with symmetrical intensity profiles, while gray-level phase (typically with four or more phase levels) can be used for generating pulse trains and other waveforms with asymmetrical intensity profiles and

could be used to intensify profile of the projection light beam.

Regarding claim 27, Silberberg discloses a device uses a pulse shaper and the desired excited substances in the tissue undergo two photon absorption, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987).

Regarding claim 28, Silberberg discloses the pulse has duration of less than fifty one femtoseconds (Column 7, Lines 44 – 55).

Silberberg discloses the claimed invention except binary phase shaper. Weiner teach a binary phase shaper. However, it is well known in the art to apply binary phase shaper as discloses by Weiner in page 1934, third paragraph. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was to apply the well known binary phase shaper as suggested by Weiner the laser of Silberberg, because could be used produce waveforms with symmetrical intensity profiles, while gray-level phase (typically with four or more phase levels) can be used for generating pulse trains and other waveforms with asymmetrical intensity profiles and could be used to intensify profile of the projection light beam.

Regarding claim 33, Silberberg discloses the multiphoton intrapulse interference (Silberberg discloses the structural (the pulse shaper (12, Column 5, Lines 15 – 33) and SHG (Column 6, Lines 19 – 24) which will implicitly provide a similar output of the multiphoton intrapulse interference) to operable activates desired photodynamic therapy agents at desired tissue depths, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987).

Regarding claims 47 and 49 - 50, Silberberg discloses a method for microscopy of a target material containing probes that are excitable by multi-photon excitation, the method comprising: generating a laser pulse (the reference do not show a laser, but show the pulse and the pulse come from the laser); shaping the pulse (see Fig. 1, Character 12, Column 5, Lines 15 – 33); directing the shaped pulse (see Figure. 1, Character 28) at the target (Column Lines 6 - 27, the reference call "sample"); and detecting (see Figure. 1, Character 28) emissions from the target (Column Lines 6 - 27, the reference call "sample").

Silberberg discloses the claimed invention except binary phase shaper. Weiner teach a binary phase shaper. However, it is well known in the art to apply binary phase shaper as discloses by Weiner in page 1934, third paragraph. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was to

apply the well known binary phase shaper as suggested by Weiner the laser of Silberberg, because could be used produce waveforms with symmetrical intensity profiles, while gray-level phase (typically with four or more phase levels) can be used for generating pulse trains and other waveforms with asymmetrical intensity profiles and could be used to intensify profile of the projection light beam. A shaping the pulse using a binary shaper employing binary phase functions (Silberberg do not explicitly disclose a binary pulse function. However, it was shown above that Silberberg teach phase shaper. These binary pulse functions so that the pulse selectively excites a desired probe by the multiphoton excitation, will inherently have these characteristics as claimed).

Regarding claim 48, Silberberg discloses evolutionary learning calculations Silberberg discloses the computer and the computer has a program to evolutionary learning calculations which will implicitly provide calculations needed) and used by the controller it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987).

Regarding claims 51, 59, Silberberg discloses a shaping the pulse with a spatial light modulator (see Figure. 1, Character 18, Column 5, Lines 14 – 29, “Spatial Light

Modulator = SLM").

Regarding claim 53, 57 Silberberg discloses a method of pulse shaping, the method comprising: emitting a laser (the reference do not show a laser, but show the pulse and the pulse come from the laser) pulse having a duration less than 100 femtoseconds (Column 7, Lines 44 – 55); directing the pulse into a pulse shaper (see Fig. 1, Character 12, Column 5, Lines 15 – 33); characterization of the pulse using multi-photon intrapulse interference phase scan (Silberberg discloses the structural (the pulse shaper (12, Column 5, Lines 15 – 33) and SHG (Column 6, Lines 19 – 24) which will implicitly provide a similar output of the multiphoton intrapulse interference phase scan); and shaping the pulse by only two phase values (see Fig. 1, Character 12, Column 5, Lines 15 – 33).

Regarding claim 60, Silberberg discloses the pulse shaper has one of the following pixel resolutions; (a) about 128 (Column 5, Lines 42) and the bandwidth of the laser is dispersed across all pixels of the phase modulator (Column 5, Lines 39 – 49).

Regarding claims 63, 65, and 68 Silberberg discloses a using the shaped pulse in photodynamic therapy on living tissue, optical coherent tomography, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus

satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987).

Regarding claim 70, Silberberg discloses the claimed invention except binary phase shaper. Weiner teach a binary phase shaper. However, it is well known in the art to apply binary phase shaper as discloses by Weiner in page 1934, third paragraph. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was to apply the well known binary phase shaper as suggested by Weiner the laser of Silberberg, because could be used produce waveforms with symmetrical intensity profiles, while gray-level phase (typically with four or more phase levels) can be used for generating pulse trains and other waveforms with asymmetrical intensity profiles and could be used to intensify profile of the projection light beam.

Regarding claims 77, 79 – 80, Silberberg discloses a method of pulse shaping, the method comprising: emitting a laser (the reference does not show a laser, but show the pulse and the pulse come from the laser); directing the pulse into a pulse shaper (see Fig. 1, Character 12, Column 5, Lines 15 – 33); characterization of the pulse using multi-photon intrapulse interference phase scan (Silberberg discloses the structural (the pulse shaper (12, Column 5, Lines 15 – 33) and SHG (Column 6, Lines 19 – 24) which will implicitly provide a similar output of the multiphoton intrapulse interference phase scan) it has been held that a recitation with respect to the manner in which a claimed

apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987); and shaping the pulse by only two phase values (see Fig. 1, Character 12, Column 5, Lines 15 – 33) automatically compensating for undesired pulse characteristics and selectively reducing three or more photon excitation (Column 4, Lines 20 – 42, Column 6, Lines 6 – 63).

Regarding claims 78 and 118, Silberberg discloses a pulse having duration less than 50 femtoseconds (Column 7, Lines 44 – 55).

Regarding claim 92, Silberberg discloses a system comprising: a laser (the reference do not show a laser, but show the pulse and the pulse come from the laser) operable emitting a laser beam pulse (see Figure. 1, Character 10) of less than 51 femtoseconds (Column 7, Lines 44 – 55); a pulse shaper (see Fig. 1, Character 12, Column 5, Lines 15 – 33) operable controlling a spectral phase of the pulse; a detector (see Figure. 1, Character 28) operable detecting a spectrally dispersed second harmonic of the shaped pulse (Column 4, Lines 8 – 19 and Column 6, Lines 19 - 27); and a controller (see Figure. 1, Character 32, the reference call “computer”) connected to the shaper (see Figure. 1, Character 12) and detector (see Figure. 1, Character 28), the controller operable controlling the shaper (see Figure. 1, Character 12) to introduce multiphoton intrapulse interference (Silberberg discloses the structural (the pulse shaper

(12, Column 5, Lines 15 – 33) and SHG (Column 6, Lines 19 – 24) which will implicitly provide a similar output of the multiphoton intrapulse interference) to the pulse.

Regarding claim 93, Silberberg discloses the pulse has duration less than 10 femtoseconds (Column 7, Lines 44 – 55).

Regarding claim 94, Silberberg discloses selectively reducing three or more photon excitation (Column 4, Lines 23 – 31)

Regarding claims 95 – 99, Silberberg discloses a calibrated reference spectral phase in the pulse shaper is used to retrieve an unknown spectral phase in subsequent pulses, further comprising using a reference spectral phase including a sinusoidal function with the pulse shaper, further comprising using a reference spectral phase including a cubic function with the pulse shaper, further comprising a retrieved unknown spectral phase in the pulse is used to calculate a compensation phase that cancels spectral phase distortions in subsequent laser beam pulses, further comprising using the shaper and controller to conduct multiphoton intrapulse interference phase scans on subsequent laser beam pulses in an iterative manner to improve the quality of pulse control, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from

a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987).

Regarding claims 100 – 101, Silberberg discloses the controller controls multiphoton intrapulse interference in the pulse with the assistance of the binary phase values and the binary phase values are predetermined prior to emission of the pulse without an evolutionary learning algorithm, the controller uses multiphoton intrapulse interference phase scan software for pulse characterization and compensation and uses evolutionary learning calculations in combination with the binary phase values, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987).

Regarding claims 102 and 103, Silberberg discloses the controller uses multiphoton intrapulse interference phase scan software for pulse characterization and compensation and the controller uses evolutionary learning calculations in combination with the binary phase values, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987).

Regarding claims 104 – 106, Silberberg discloses the further comprising creating a transform-limited pulse with the pulse shaper, further comprising creating a user- specified shaped pulse with the pulse shaper and further comprising obtaining a second harmonic spectrum of the pulse with a second-harmonic generation crystal and a spectrometer (Column 2, Lines 31 - 57, Column 4, Lines 15 – 41, Column 6, Lines 6 – 27).

Regarding claims 108 – 109, Silberberg discloses the pulse shaper includes a spatial light modulator which both introduces a reference phase and compensates for phase distortions and further comprising automatically calculating the second derivative of a spectral phase from a collection of second harmonic spectra obtained as a referenced phase is scanned, and obtaining the spectral phase by integration (Column 2, Lines 31 - 57, Column 4, Lines 15 – 41, Column 6, Lines 6 – 27).

Regarding claims 110, Silberberg discloses the claimed invention except binary phase shaper. Weiner teach a binary phase shaper. However, it is well known in the art to apply binary phase shaper as discloses by Weiner in page 1934, third paragraph. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was to apply the well known binary phase shaper as suggested by Weiner the laser of Silberberg, because could be used produce waveforms with symmetrical intensity profiles, while gray-level phase (typically with four or more phase

levels) can be used for generating pulse trains and other waveforms with asymmetrical intensity profiles and could be used to intensify profile of the projection light beam.

Regarding claims 111, Silberberg discloses a system comprising: a laser (the reference do not show a laser, but show the pulse and the pulse come from the laser) emitting a laser beam pulse (see Fig. 1, Character 10 and Column 2, Lines 15 – 16); a shaper (see Figure 1, Character 12); and a controller (see Fig. 1, Character 32, the reference call "computer"), in reference to the claim language referring to [controlling multiphoton intrapulse interference in the pulse with the assistance of the binary phase values], intended use and other types of functional language must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable to performing the intended use, and then it meets the claim. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987). In a claim drawn to a process to making, the intended use must result in a manipulative difference as compared to the prior art. In Regarding claim Casey, 152 USPQ 235 (CCPA 1967); In Regarding claim Otto, 136 USPQ 458, 459 (CCPA 1963).

Silberberg discloses the claimed invention except phase shaper operable to shape the pulse with binary phase value. Weiner teach a phase shaper operable to

shape the pulse with binary phase value. However, it is well known in the art to apply phase shaper operable to shape the pulse with binary phase value as discloses by Weiner in page 1934, third paragraph. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was to apply the well known phase shaper operable to shape the pulse with binary phase value as suggested by Weiner the laser of Silberberg, because could be used produce waveforms with symmetrical intensity profiles, while gray-level phase (typically with four or more phase levels) can be used for generating pulse trains and other waveforms with asymmetrical intensity profiles and could be used to intensify profile of the projection light beam. A phase shaper (see Figure 1, Character 12) operable to shaped the pulse with binary phase-value (Silberberg do not explicitly disclose a binary pulse-value. However, it was shown above that Silberberg teach phase shaper. These binary pulse-values will inherently have these characteristics as claimed).

Regarding claim 112 – 117, Silberberg discloses the controller uses multiphoton intrapulse interference phase scan software for pulse characterization and compensation, the controller uses evolutionary learning calculations in combination with the binary phase values, the bandwidth of the laser is dispersed across all pixels of the phase modulator, the system is employed in optical coherence tomography and the system is employed in functional imaging and the system is employed in photodynamic therapy, it has been held that a recitation with respect to the manner in

which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987).

Regarding claim 119 – 123, In reference to the claim language referring to [generating an optical tomography image produced by the shaped pulse passing through the tissue, the device is a pulse shaper which enhances two photon absorption by a therapeutic substance and substantially prevents three photon induced damage of adjacent healthy tissue, the device includes a phase modulation mask operable modifying the beam, the pulse is shaped to enhance targeted multiphoton damage to modify or destroy certain molecules in the living tissue and the multiphoton intrapulse interference operable activates desired photodynamic therapy agents at desired tissue depths], intended use and other types of functional language must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable to performing the intended use, and then it meets the claim. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987). In a claim drawn to a process to making, the intended use must result in a manipulative difference as compared to the prior art. In regarding claim Casey, 152

USPQ 235 (CCPA 1967); In Regarding claim Otto, 136 USPQ 458, 459 (CCPA 1963).

Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over are rejected under 35 U.S.C. 103(a) as being unpatentable over Silberberg et al. (6,327,068) in view of Kappel et al (5,704,700) further in view of Miyai (2001/0015990).

Regarding claim 52, Silberberg discloses the claimed invention except confocal microscope. Miyai teach a confocal microscope. However, it is well known in the art to apply confocal microscope as discloses by Miyai in paragraph [0003]. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was to apply the well known confocal microscope as suggested by Miyai to the laser of Silberberg, because could be used to focus on much narrower region than usual microscopes see Paragraphs [003] of Miyai.

Allowable Subject Matter

Claims 3, 107 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of

the base claim and any intervening claims. Claim 3 recites a system structure including the specific structure limitation of *multiphoton intrapulse interference phase scan software, for pulse characterization and compensation used by the controller, subtracting the phase distortion when subsequent phase functions are introduced by the pulse shaper to compensate for phase distortions of the input laser pulse* which is neither anticipated or disclosed nor suggested in any piece of available prior art, which is neither anticipated nor obvious over the prior art of record.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Delma R. Fordé whose telephone number is (571) 272-1940. The examiner can normally be reached on M - F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Min Sun Harvey can be reached on (571) -272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Delma R. Fordé/
Examiner, Art Unit 2828
December 31, 2008

/Minsun Harvey/
Supervisory Patent Examiner, Art Unit 2828